



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/821,483	04/09/2004	Takao Suzuki	16869Q-106800US	1419
20350 7590 11/05/2007 TOWNSEND AND TOWNSEND AND CREW, LLP TWO EMBARCADERO CENTER EIGHTH FLOOR SAN FRANCISCO, CA 94111-3834			EXAMINER CHEN, TIANJIE	
			ART UNIT 2627	PAPER NUMBER
			MAIL DATE 11/05/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/821,483	SUZUKI ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Tianjie Chen	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 21 September 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) 2,6-9,15 and 19-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-5,10-12,14,16-18,23-25 and 27 is/are rejected.
- 7) ☒ Claim(s) 13,26 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## ***Final Rejection***

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1, 3-5, 10-12, 14, 16-18, 23-25, and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Isomura et al (US 5,729,405).

Claim 1, Isomura et al shows a rotary disk storage device in Fig. 1 including:

a housing 10;

a rotary disk recording medium 21, the rotary disk recording medium having a data area and being rotatable about a spindle shaft supported by a bottom of the housing;

a slider 22 to which a head is attached to read data from the rotary disk recording medium;

a suspension assembly 23 to which the slider is attached;

an actuator assembly 25+26+27 to which the suspension assembly is attached, the actuator assembly including a first arm (left arm) and a second arm (right arm) and being adapted to turn about a pivot shaft 24 so that the head moves between the data area and a retraction area, the pivot shaft being supported by the bottom of the housing; and

a stopper 34+etc. including an elastic member 34 (Column 5, line 12), the elastic member being cantilevered by a support rod 35 (Fig. 2) and with a magnetic

Art Unit: 2627

material 32 (Column 5, line 13) embedded therein for attracting the actuator assembly, wherein, when the either the first arm or the second arm (in this reference is the first arm) the actuator assembly comes into abutment against the elastic member, the elastic member undergoes a moment of force so as to restrict an excessive movement of the actuator assembly to an inner or an outer side, and cushions the abutment.

Claim 14, as described above, Isomura et al shows a rotary disk storage device including:

- a housing;

- a rotary disk recording medium, the rotary disk recording medium having a data area and being rotatable about a spindle shaft supported by a bottom of the housing;

- a slider to which a head is attached to read data from the rotary disk recording medium;

- a suspension assembly to which the slider is attached;

- an actuator assembly to which the suspension assembly is attached, the actuator assembly including a first arm and a second arm and being adapted to turn about a pivot shaft so that the head moves between the data area and a retraction area, the pivot shaft being supported by the bottom of the housing; and

- a stopper including an elastic member cantilevered by a support rod, wherein, when either the first arm or the second arm of the actuator assembly comes into abutment against the elastic member, the elastic member undergoes a moment of force so as to restrict an excessive movement of the actuator assembly to an inner or

Art Unit: 2627

an outer side, and cushions the abutment, and the support rod is disposed outside a turning track of a turning end of the right arm (Fig. 1) of the actuator assembly.

Claim 27, as described above, Isomura et al shows a rotary disk storage device including:

- a housing;

- a rotary disk recording medium, the rotary disk recording medium having a data area and being rotatable about a spindle shaft supported by a bottom of the housing;

- a slider to which a head is attached to read data from the rotary disk recording medium;

- a suspension assembly to which the slider is attached;

- an actuator assembly to which the suspension assembly is attached, the actuator assembly including a first arm and a second arm and being adapted to turn about a pivot shaft so that the head moves between the data area and a retraction area, the pivot shaft being supported by the bottom of the housing; and

- a stopper including an elastic member, the elastic member being cantilevered by a support rod and with a magnetic material being embedded therein for attracting the actuator assembly, wherein, when either the first arm or second arm of the actuator assembly comes into abutment against the elastic member, the elastic member undergoes a moment of force so as to restrict an excessive movement of the actuator assembly to an inner or an outer side, and cushions the abutment, and the support rod 35 is disposed outside a turning track of a turning end of the right arm (Fig. 1) of the actuator assembly.

Claims 3 and 16, Isomura et al shows that the retraction area is formed on the rotary disk recording medium, and the actuator assembly causes the slider to be retracted to the retraction area (Column 4, lines 25-30).

Claims 4 and 17, Isomura et al further shows a coil 27 (Fig. 1; column 4, line 45) support of the actuator assembly is formed in a bifurcated shape, and the stopper is disposed inside the bifurcated shape.

Claims 5 and 18, Isomura et al further shows that the portion of either the outer or the inner side of the elastic member of the stopper, against which the actuator assembly turns into abutment, is formed in a shape having a shock absorbing property that prevents rebounding of the actuator assembly upon abutment by the magnet 32, while the portion of the other outer or inner side of the elastic member, against which the actuator assembly turns into abutment, is formed in a shape having a shock absorbing property that permits the actuator assembly to stop substantially in the same position upon abutment.

Claims 10 and 23, Isomura et al further shows in Figs. 4A-4C that the elastic member 34 of the stopper, when fitted on the support rod 35, comes into pressure contact with the support rod.

Claims 11 and 24, Isomura further shows a lower yoke 28 and an upper yoke 29 (Fig. 1; column 4, lines 45-46), with a voice coil motor being installed inside the lower and upper yokes to rotate the actuator assembly, the lower and upper yokes imparting a rotational force to the voice coil motor by virtue of a magnetic field, and wherein a rod 35 projecting from the lower yoke (Fig. 4C) is used as the support rod.

Claims 12 and 25, Isomura et al further shows a swivel stop 32 fitted in an insertion hole formed in the elastic member, the swivel stop being disposed in such a

Art Unit: 2627

position as prevents rotation of the elastic member centered on a support point of the stopper.

***Allowable Subject Matter***

2. Claims 13 and 26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

- With regard to claims 13 and 26; as the closest reference of record, Isomura et al (US 5,729,405) shows a rotary disk storage device in Fig. 1 including: a housing 10; a rotary disk recording medium 21, the rotary disk recording medium having a data area and being rotatable about a spindle shaft supported by a bottom of the housing; a slider 22 to which a head is attached to read data from the rotary disk recording medium; a suspension assembly 23 to which the slider is attached; an actuator assembly 25+26+27 to which the suspension assembly is attached, the actuator assembly being adapted to turn about a pivot shaft 24 so that the head moves between the data area and a retraction area, the pivot shaft being supported by the bottom of the housing; and a stopper 34+etc. including an elastic member 34 (Column 5, line 12), the elastic member being cantilevered by a support rod 35 (Fig. 2) and with a magnetic material 32 (Column 5, line 13) embedded therein for attracting the actuator assembly, wherein, when any portion of the actuator assembly comes into abutment against the elastic member, the elastic member undergoes a moment of force so as to restrict an excessive movement of the actuator

assembly to an inner or an outer side, and cushions the abutment; **but fails to show** a swivel stop abutted against an outer surface of the elastic member, the swivel stop being disposed in such a position as prevents rotation of the elastic member centered on a support point of the stopper.

- Applicant asserts; “the rotary disk storage device further comprises a swivel stop abutted against an outer surface of the elastic member, the swivel stop being disposed in such a position as prevents rotation of the elastic member centered on a support point of the stopper. According to this construction, when the actuator assembly comes into abutment against the elastic member, it is possible to prevent a change in turning range of the actuator assembly caused by rotation of the stopper and consequent dislocation of the abutted position” ([0028]).

### ***Response to Arguments***

3. Applicant's arguments filed 09/21/2007 have been fully considered but they are not persuasive.

- Applicant recites “either said first arm or said second arm of said actuator assembly comes into abutment against said elastic member;” and argues that in Isomura et al's reference, only one arm comes into abutment against the elastic member.
- Examiner's position: Merriam-Webster online dictionary shows:

- |   |
|---|
| <ul style="list-style-type: none"><li>○ Either:</li><li>○ 1 : being the one and the other of two : <u>EACH</u> &lt;flowers blooming on <i>either</i> side of the walk&gt;<br/>&lt;plays <i>either</i> instrument well&gt;</li><li>○ 2 : being the one or the other of two &lt;take <i>either</i> road&gt;</li></ul> |
|---|

It is clear that there are two ways to use “either.”



Art Unit: 2627

Applicant's argument tries to interpret the word "either" in the first way showing in the dictionary. However, Applicant uses "either the one or the other of two" structure, which should be interpreted by the second way showing in dictionary; i.e. only needs one or other and does not need both of one and the other to interpret the word "either." Therefore, Isomura et al's reference reads on the claim properly.

- The rejection maintains.

### **Conclusion**

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tianjie Chen whose telephone number is 571-272-7570. The examiner can normally be reached on 8:00-4:30, Mon-Fri.

Art Unit: 2627

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Nguyen can be reached on 571-272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
**TIANJIE CHEN**  
**PRIMARY EXAMINER**